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WDG-16-4 Comeback Cy

JOINT MESSAGEFORM

CO[redacted] SECURITY CLASSIFICATION [redacted] [redacted]

SPACE BELOW RESERVED FOR COMMUNICATION CENTER

1960 AUG 19 02 00

PRECEDENCE	TYPE MSG (Check) BOOK	MULTI	SINGLE	ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
ACTION OPERATIONAL IMMEDIATE INFO OPERATIONAL IMMEDIATE						

FROM:

CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

TO:

HQ AFBMD, LOS ANGELES 45, CALIF

HQ 6594TH TEST WING (SATELLITE), SUNNYVALE, CALIF

LOCKHEED MISSILES & SPACE DIV, SUNNYVALE, CALIF

LOCKHEED MISSILES & SPACE DIV, VAFB, CALIF (COURIER)

DOUGLAS AIRCRAFT COMPANY, VAFB, CALIF (COURIER)

INFO: 1ST MISSILE DIVISION, VAFB, CALIF (COURIER)

AFBMD TECHNICAL EVALUATION STAFF, P.O. BOX 1567, VAFB, CALIF (COURIER)

SPECIAL INSTRUCTIONS

CLASSIFICATION CHANGED TO [redacted]
By Authority of 205-2
5 APR 1966

2p/16

#1 of 3

...RADED AT 3 YEAR INTERV...
...CLASSIFIED AFTER 12 YEARS
DOD DIRECTIVE 5200.10

SECRET/WDG-16-4/1-129.

LOSA FOR WDZY; 6594TH TW FOR LT COL MATHISON; LMSD/SUNNYVALE FOR DEPT 61-44 (L. F. MORGAN); LMSD/VAFB FOR DEPT 65-44 AND 61-70; DAC FOR E. PURDY. INFO FOR 1MD FOR COMMAND POST; AFBMD TECH EVAL STAFF FOR MR. PISCHEL. SUBJECT: FLASH REPORT OF LAUNCHING OF DISCOVERER XIV (NIGHT SHIFT-PRESTO) FROM VANDENBERG AFB.

1. VEHICLE CONFIGURATION:

1.1. SATELLITE VEHICLE, LOCKHEED MODEL 2205, SERIAL NO. 1056 SEPARATION WEIGHT 8,643 LBS.

DATE	TIME
18	
MONTH	YEAR
AUG	1960

SYMBOL: WDG-16-4

WRITER

TYPED NAME AND TITLE (Signature if required): HAROLD M. POWELL, JR., MAJ, USAF

PHONE 6734 | PAGE NR. 1 | NR. OF PAGES 3

SEC[redacted] [redacted]

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Chief, Satellite Systems Division

6592 COMBAT
SUPP GP ~~60-196~~ 4
Copy _____ copies 64

DD FORM 173 1 MAY 55 REPLACES DD FORM 173, 1 OCT 49, WHICH WILL BE USED UNTIL EXHAUSTED

V-60-2029

JOINT MESSAGEFORM - CONTINUATION SHEET [redacted] [redacted]

FROM:
CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

1.2. FIRST STAGE, THOR DM-18, SERIAL NO. 237, MODIFIED TO UTILIZE A STRUCTURAL ADAPTER TO THE SATELLITE VEHICLE.

1960 AUG 19 02

2. DATE AND TIME OF LAUNCH 18 AUGUST 1960 AT 1257:07.85 PDT INTO A POLAR ORBIT ON AN ORBIT INJECTION AZIMUTH OF APPROXIMATELY 172 DEGREES.

3. PRIMARY OBJECTIVES. SEE BASIC DTO, LMSD DOCUMENT NO. 445725 AND APPENDIX "F".

4. THE PRIMARY OBJECTIVE TO ATTAIN AN ORBIT WAS SATISFACTORILY ACHIEVED AS RECORDED BY ACQUISITION ON TRACKING AIDS AT KODIAK, ANNETTE AND VAFB ON THE FIRST PASS.

4.1. PRIMARY OBJECTIVE OF THE THOR BOOSTER TO CARRY THE DISCOVERER SATELLITE TO THE PLANNED SEPARATION ALTITUDE AND VELOCITY WAS DEMONSTRATED. MAIN ENGINE BURNING TIME WAS APPROXIMATELY 165.0 SECONDS WITH VERNIER CUT-OFF APPROXIMATELY 9.47 SECONDS LATER.

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4.2. THE PRIMARY OBJECTIVE OF THE SATELLITE AIRFRAME TO WITHSTAND THE CONTROL SYSTEM PERTURBATIONS AND ENVIRONMENTAL CONDITIONS WAS SATISFACTORILY INDICATED THROUGH ORBIT INJECTION. SEPARATION OCCURRED APPROXIMATELY 7.84 SECONDS AFTER VERNIER ENGINE CUT-OFF.

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4.3. THE PRIMARY OBJECTIVE OF THE AGENA PROPULSION SYSTEM TO PROVIDE THE ADDITIONAL TOTAL IMPULSE TO ATTAIN ORBIT WAS SATISFACTORILY DEMONSTRATED. SECOND STAGE IGNITION OCCURRED AFTER A COAST PERIOD OF APPROXIMATELY 95.5 SECONDS AFTER SEPARATION. AGENA ENGINE BURNING TIME OF 115.8 SECONDS WAS ACHIEVED THUS INDICATING PROPER PROPELLANT UTILIZATION. THE TOTAL IMPULSE DESIRED WAS OBTAINED AS EVIDENCED BY THE BURNOUT VELOCITY OF APPROXIMATELY 26,000 FT PER SECOND AS

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JOINT MESSAGEFORM - CONTINUATION SHEET

SECURITY CLASSIFICATION [redacted]

FROM

CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

DETERMINED FROM THE PLOT BOARD CHARTS.

4.4. THE AGENA APU SYSTEM SATISFACTORILY DEMONSTRATED ACCEPTABLE PERFORMANCE OF COMPONENTS AND ABILITY TO SUPPLY POWER REQUIREMENTS THROUGH THE FIRST PASS.

4.5. THE ABILITY OF THE AGENA GUIDANCE AND CONTROL SYSTEM TO DERIVE THE TIME TO INITIATE AND TERMINATE ORBITAL BOOST AT THE PROPER TIME WAS SATISFACTORY. AN INJECTION ANGLE OF APPROXIMATELY 0° WAS ACHIEVED. A VEHICLE ATTITUDE STABILIZATION PROBLEM WAS INDICATED ON PASS ONE BY ABNORMAL OUTPUT IN THE HORIZON SCANNER PITCH AND ROLL CHANNELS AND GREATER THAN NORMAL CONTROL GAS CONSUMPTION.

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4.6. THE PRIMARY OBJECTIVE OF THE SATELLITE AIRBORNE AND GROUND TELEMETRY, TRACKING AND COMMAND SYSTEM WAS DEMONSTRATED SATISFACTORILY THROUGH ORBIT INJECTION.

5. ALL SECONDARY OBJECTIVES THROUGH THE FIRST PASS WERE ACHIEVED.

6. ALL TERTIARY OBJECTIVES WERE ACHIEVED THROUGH THE FIRST PASS.

7. THE FOLLOWING ADDITIONAL INFORMATION IS SUBMITTED:

(A) THE TLM-18 VAFB TRACKED FOR 456 SECONDS.

(B) THE INJECTION ALTITUDE WAS APPROXIMATELY 120 STATUTE MILES.

8. PAD DAMAGE WAS MINIMUM. PAD RECOVERY TIME OF APPROXIMATELY FIVE WORKING DAYS IS EXPECTED.

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